



KEY WAY STANDARDS

IMPERIAL

(BS 46 : PART 1 : 1958)

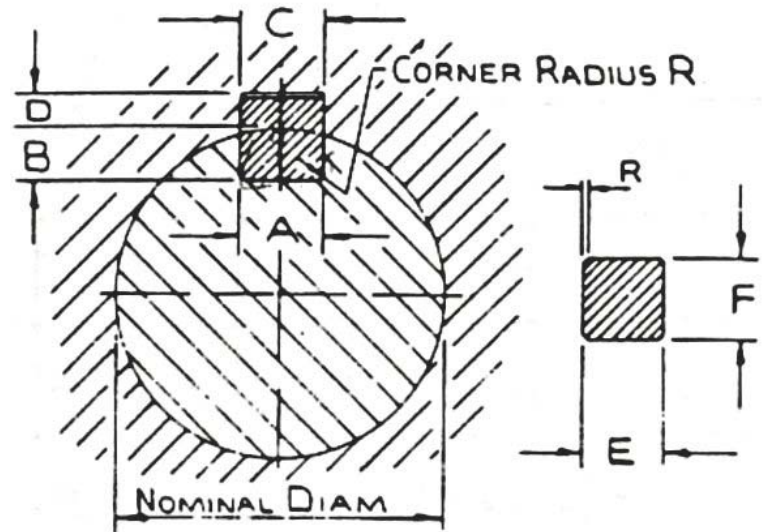
Safe working loads on keys

Torque inch/pounds $9000 \times \ell \times F \times \text{shaft dia. (inches)}$



$$HP = \frac{\text{Torque (inch/pounds)} \times \text{RPM}}{63025}$$

1 HP = .7457 KW



NOMINAL SHAFT DIAM.		KEY SIZE	DIMENSIONS (INCHES)						
OVER	TO (Incl.)		A	B	C	D	E	F	R
1/4"	1/2"	1/8" x 1/8"	0.124 0.125	0.072 0.078	0.125 0.126	0.060 0.066	0.127 0.125		0.010
1/2"	3/4"	3/16" x 3/16"	0.187 0.188	0.107 0.113	0.188 0.189	0.088 0.094	0.190 0.188		0.010
3/4"	1"	1/4" x 1/4"	0.249 0.250	0.142 0.148	0.250 0.251	0.115 0.121	0.252 0.250		0.010
1"	1.1/4"	5/16" x 5/16"	0.311 0.312	0.177 0.183	0.312 0.313	0.142 0.148	0.314 0.312		0.010
1.1/4"	1.1/2"	3/8" x 3/8"	0.374 0.375	0.213 0.219	0.375 0.376	0.169 0.175	0.377 0.375		0.010
1.1/2"	1.3/4"	7/16" x 7/16"	0.437 0.438	0.248 0.254	0.438 0.439	0.197 0.203	0.440 0.438		0.020
1.3/4"	2"	1/2" x 1/2"	0.499 0.500	0.283 0.289	0.500 0.501	0.224 0.230	0.502 0.500		0.020
2"	2.1/4"	9/16" x 9/16"	0.562 0.563	0.321 0.327	0.563 0.564	0.245 0.251	0.565 0.563		0.020
2"	2.1/2"	5/8" x 5/8"	0.624 0.625	0.354 0.360	0.625 0.626	0.278 0.284	0.627 0.625		0.020
2.1/2"	3"	3/4" x 3/4"	0.749 0.750	0.424 0.430	0.750 0.751	0.333 0.339	0.752 0.750		0.020
3"	3.1/2"	7/8" x 7/8"	0.874 0.875	0.495 0.501	0.875 0.876	0.387 0.393	0.877 0.875		0.062
3.1/2"	4"	1" x 1"	0.999 1.000	0.566 0.572	1.000 1.001	0.442 0.448	1.003 1.000		0.062
4"	4.1/2"	1.1/8" x 1.1/8"	1.123 1.125	0.640 0.646	1.125 1.127	0.489 0.495	1.128 1.125		0.062
4"	5"	1.1/4" x 1.1/4"	1.248 1.250	0.707 0.713	1.250 1.252	0.551 0.557	1.253 1.250		0.062
5"	5.1/2"	1.3/8" x 1.3/8"	1.373 1.375	0.782 0.788	1.375 1.377	0.598 0.604	1.378 1.375		0.062
5"	6"	1.1/2" x 1.1/2"	1.498 1.500	0.848 0.854	1.500 1.502	0.661 0.667	1.504 1.500		0.062
6.1/2"	7"	1.3/4" x 1.3/4"	1.748 1.750	0.993 0.999	1.750 1.752	0.762 0.768	1.754 1.750		0.062
7.1/2"	8"	2" x 2"	1.998 2.000	1.134 1.140	2.000 2.002	0.872 0.878	2.004 2.000		0.062

* :-Indicates Non Standard Key.

NOMINAL SHAFT DIAM.		KEY SIZE	DIMENSIONS (INCHES)						
OVER	TO (Incl.)		A	B	C	D	E	F	R
1"	1.1/4"	5/16" x 1/4"	0.311 0.312	0.146 0.152	0.312 0.313	0.112 0.118	0.314 0.312	0.253 0.250	0.010
1.1/4"	1.1/2"	3/8" x 1/4"	0.374 0.375	0.150 0.156	0.375 0.376	0.108 0.114	0.377 0.375	0.253 0.250	0.010
		3/8" x 5/16"	0.374 0.375	0.182 0.188	0.375 0.376	0.139 0.145	0.377 0.375	0.315 0.312	0.010
		7/16" x 1/4"	0.437 0.438	0.154 0.160	0.438 0.439	0.104 0.110	0.440 0.438	0.253 0.250	0.020
1.1/2"	1.3/4"	7/16" x 5/16"	0.437 0.438	0.186 0.192	0.438 0.439	0.135 0.141	0.440 0.438	0.315 0.312	0.020
1.3/4"	2"	1/2" x 5/16"	0.499 0.500	0.190 0.196	0.500 0.501	0.131 0.137	0.502 0.500	0.315 0.312	0.020
		1/2" x 7/16"	0.499 0.500	0.256 0.262	0.500 0.501	0.189 0.195	0.502 0.500	0.440 0.438	0.020
2"	2.1/2"	5/8" x 7/16"	0.624 0.625	0.260 0.266	0.625 0.626	0.185 0.191	0.627 0.625	0.441 0.438	0.020
		5/8" x 1/2"	0.624 0.625	0.295 0.301	0.625 0.626	0.213 0.219	0.627 0.625	0.502 0.500	0.020
2.1/2"	3"	3/4" x 1/2"	0.749 0.750	0.299 0.305	0.750 0.751	0.209 0.215	0.752 0.750	0.503 0.500	0.020
		3/4" x 5/8"	0.749 0.750	0.366 0.372	0.750 0.751	0.274 0.280	0.752 0.750	0.629 0.625	0.020
3"	3.1/2"	7/8" x 5/8"	0.874 0.875	0.370 0.376	0.875 0.876	0.264 0.270	0.877 0.875	0.629 0.625	0.062
		1" x 5/8"	0.999 1.000	0.374 0.380	1.000 1.001	0.260 0.266	1.003 1.000	0.629 0.625	0.062
3.1/2"	4"	1" x 3/4"	0.999 1.000	0.441 0.447	1.000 1.001	0.318 0.324	1.003 1.000	0.754 0.750	0.062
4"	5"	1.1/4" x 7/8"	1.248 1.250	0.518 0.524	1.250 1.251	0.366 0.372	1.253 1.250	0.879 0.875	0.062
5"	6"	1.1/2" x 1"	1.498 1.500	0.599 0.605	1.500 1.501	0.412 0.418	1.504 1.500	1.006 1.000	0.062

* :-Indicates Non Standard Key.



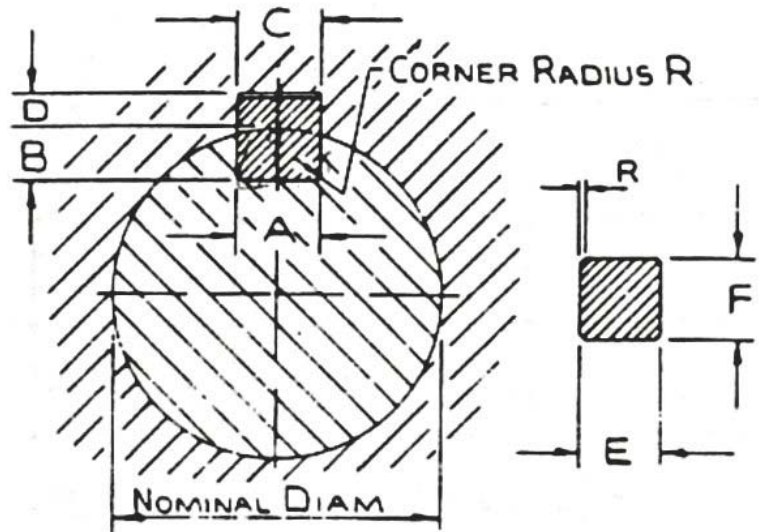
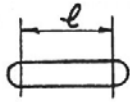
KEY WAY STANDARDS

METRIC

(BS 4235 : PART 1 : 1972)

Safe working loads on keys

Torque Nm $.065 \times \ell \times F \times \text{shaft dia. (mm)}$



$$KW = \frac{\text{Torque (Nm)} \times \text{RPM}}{9550}$$

NOMINAL SHAFT DIAM.		KEY SIZE	DIMENSIONS (mm)						
OVER	TO (Incl.)		A	B	C	D	E	F	R
10	12	4 x 4	3.970 4.000	2.5 2.6	3.985 4.015	1.8 1.9	4.030 3.970		0.16
12	17	5 x 5	4.970 5.000	3.0 3.1	4.985 5.015	2.3 2.4	5.030 4.970		0.25
17	22	6 x 6	5.970 6.000	3.5 3.6	5.985 6.015	2.8 2.9	6.030 5.970		0.25
		8 x 8	7.964 8.000	5.0 5.2	7.982 8.018	3.3 3.5	8.000 7.970		0.25
		10 x 10	9.964 10.000	6.0 6.2	9.982 10.018	4.3 4.5	10.000 9.964		0.40
		12 x 12	11.957 12.000	7.5 7.7	11.979 12.021	4.9 5.1	12.000 11.957		0.40
		16 x 16	15.957 16.000	10.0 10.2	15.979 16.021	6.4 6.6	16.000 15.957		0.40
		20 x 20	19.948 20.000	12.0 12.3	19.974 20.026	8.4 8.7	20.000 19.957		0.60
		22 x 22	21.948 22.000	13.0 13.3	21.974 22.026	9.4 9.7	22.000 21.948		0.60
22	30	8 x 7	7.964 8.000	4.0 4.2	7.982 8.018	3.3 3.5	8.000 7.964	7.000 6.910	0.25
30	38	10 x 8	9.964 10.000	5.0 5.2	9.982 10.018	3.3 3.5	10.000 9.964	8.000 7.910	0.40
38	44	12 x 8	11.957 12.000	5.0 5.2	11.979 12.021	3.3 3.5	12.000 11.957	8.000 7.910	0.40
		12 x 10	11.957 12.000	6.0 6.2	11.979 12.021	4.3 4.5	12.000 11.957	10.000 9.964	0.40
44	50	14 x 9	13.957 14.000	5.5 5.7	13.979 14.021	3.8 4.0	14.000 13.957	9.000 8.910	0.40
50	58	16 x 10	15.957 16.000	6.0 6.2	15.979 16.021	4.3 4.5	16.000 15.957	10.000 9.910	0.40
58	65	18 x 11	17.957 18.000	7.0 7.2	17.979 18.021	4.4 4.6	18.000 17.957	11.000 10.890	0.40
65	75	20 x 12	19.948 20.000	7.5 7.7	19.974 20.026	4.9 5.1	20.000 19.948	12.000 11.890	0.60
75	85	22 x 14	21.948 22.000	9.0 9.2	21.974 22.026	5.4 5.6	22.000 21.948	14.000 13.890	0.60

* :-Indicates Non Standard Key.

NOMINAL SHAFT DIAM.		KEY SIZE	DIMENSIONS (mm)						
OVER	TO (Incl.)		A	B	C	D	E	F	R
85	95	25 x 14	24.948 25.000	9.0 9.2	24.974 25.026	5.4 5.6	25.000 24.948	14.000 13.890	0.60
95	110	28 x 16	27.948 28.000	10.0 10.2	27.974 28.026	6.4 6.6	28.000 27.948	16.000 15.890	0.60
110	130	32 x 18	31.938 32.000	11.0 11.2	31.969 32.031	7.4 7.6	32.000 31.938	18.000 17.890	0.60
130	150	36 x 20	35.938 36.000	12.0 12.3	35.969 36.031	8.4 8.7	36.000 35.938	20.000 19.870	1.00
150	170	40 x 22	39.938 40.000	13.0 13.3	39.969 40.031	9.4 9.7	40.000 39.938	22.000 21.870	1.00
170	200	45 x 25	44.938 45.000	15.0 15.3	44.969 45.031	10.4 10.7	45.000 44.938	25.000 24.870	1.00
200	230	50 x 28	49.938 50.000	17.0 17.3	49.969 50.031	11.4 11.7	50.000 49.938	28.000 27.870	1.00